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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/780,314

02/17/2004

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09/01/2006

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EXAMINER

KUGEL, TIMOTHY J

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/780,314

Applicant(s)

REDDY ET AL.

Examiner

Timothy J. Kugel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006 and 24 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-23,27-35 and 37-55 is/are pending in the application.
- 4a) Of the above claim(s) 41-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-23,27-35 and 37-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 21-23,27-35 and 37-55 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 21-23, 27-35 and 37-55 are pending as amended on 19 July 2006, claims 1-20, 24-26 and 36 being cancelled. Claims 41-55 are withdrawn from further consideration.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

3. Applicant's amendment, filed 19 July 2006, with respect to the composition requiring an ionic water-soluble hydrophobically modified polymer has been fully considered and overcomes the prior art rejections presented in the previous Office action.

The rejection of claims 21-28 and 31-36 under 35 U.S.C. 102(b) as being anticipated by US Patent 5,939,485 (Bromberg hereinafter) has been withdrawn.

The rejection of claims 29 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Bromberg in view of US Patent 6,444,316 (Reddy hereinafter) has been withdrawn.

The rejection of claims 21-24 and 35 under 35 U.S.C. 102(b) as being anticipated by US Patent 3,241,612 (Hiller hereinafter) has been withdrawn.

The rejection of claims 28, 31-34 and 36 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hiller has been withdrawn.

The rejection of claims 29 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Hiller in view of Reddy has been withdrawn.

Election/Restrictions

4. Applicant's election with traverse of species (a)—a wellbore fluid comprising an ionic water-soluble hydrophobically modified polymer—in the reply filed on 24 August 2006 is acknowledged. The traversal is on the grounds that searching of each of the three species would not be a serious burden. This is not found persuasive because the species are mutually exclusive—species (a) requiring an ionic water-soluble hydrophobically modified polymer, species (b) requiring a non-ionic water-soluble hydrophobically modified polymer and that the composition be substantially free of a surfactant and species (c) requiring a non-ionic water-soluble hydrophobically modified polymer and that composition to contain an ionic surfactant; therefore a search for any of the three groups would not result in finding either of the other groups and therefore three distinct searches would be required.

The requirement is still deemed proper and is therefore made **FINAL**.

Claims 41-55 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or

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linking claim. Applicant timely traversed the election requirement in the reply filed on 24 August 2006.

This application contains claims 41-55 drawn to an invention nonelected with traverse in the response filed 24 August 2006. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 21-23, 27-35 and 37-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites, "A wellbore servicing fluid comprising a thermally activated viscosification compound comprising..." However, the term 'compound' is generally understood to define a single chemical species, which is at odds with the transitional term comprising, which is inclusive or open-ended and does not exclude additional, unrecited elements. For the purpose of examination, claim 21 was construed to recite, "A wellbore servicing fluid comprising a thermally activated viscosification ~~compound~~ composition comprising..."

Claim 29, drawn to a composition, recites the limitation, "released downhole" which is directed to a method of operating or using the composition mixed with the

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composition limitations. By incorporating two statutory classes into one claim, the meets and bounds of the claim are confusing and therefore the line of infringement becomes ambiguous to the public (MPEP 2173.05(p)).

Claim 33, drawn to a composition, recites the limitation, "forms a physically crosslinked gel" which is directed to a method of operating or using the composition mixed with the composition limitations. By incorporating two statutory classes into one claim, the meets and bounds of the claim are confusing and therefore the line of infringement becomes ambiguous to the public (MPEP 2173.05(p)).

Claim 34, drawn to a composition, recites the limitation, "forms a thermally reversible gel" which is directed to a method of operating or using the composition mixed with the composition limitations. By incorporating two statutory classes into one claim, the meets and bounds of the claim are confusing and therefore the line of infringement becomes ambiguous to the public (MPEP 2173.05(p)).

Claim 40 recites the limitation "The wellbore servicing fluid of claim 39 wherein the non-ionic surfactant..." There is insufficient antecedent basis for this limitation in the claim. For the purpose of examination, claim 40 was construed to recite, "The wellbore servicing fluid of claim ~~39~~ 27 wherein the non-ionic surfactant..."

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 29, 30, 33 and 34 are rejected under 35 U.S.C. § 101 because the claims are directed to neither a “process” nor a “composition,” but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. § 101 which is drafted so as to set forth the statutory classes of invention in the alternative only (MPEP 2173.05(p)).

Claim Rejections - 35 USC § 102

6. Claims 21-23, 27, 28, 31-35, and 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,169,058 (Le hereinafter).

Le teaches a wellbore treating fluid—specifically a proppant-laden (Column 3 Line 33 – Column 4 Line 16) fracturing fluid (Column 1 Lines 6-16)—comprising from about 0.1% to about 1.5% (Column 3 Line 33 – Column 4 Line 16) of a non-ionic hydrophobically modified polymer—specifically a formulation of acrylamide, sodium acrylate and a crosslinker (Column 11 Lines 56-63)—and a nonionic surfactant (Column 12 Line 63 – Column 13 Line 7).

Since Le teaches the same composition used in the same manner as claimed, the thermal activity and reversibility of the gel of the Le composition would inherently be the same as claimed.

Claim Rejections - 35 USC § 103

7. Claims 29 and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Le as applied to claims 21-23, 27, 28, 31-35, and 37-39 above in view of Reddy.

Le teaches a wellbore treating fluid—specifically a proppant-laden fracturing fluid—comprising from about 0.1% to about 1.5% of a non-ionic hydrophobically modified polymer—specifically a formulation of acrylamide, sodium acrylate and a crosslinker—and a nonionic surfactant as detailed above. Le further teaches that the composition may contain salts—including sodium salts (Column 16 Lines 7-40).

Since Le teaches the same composition used in the same manner as claimed, the thermal activity of the Le composition would inherently be the same as claimed.

Le does not disclose expressly that the salt is encapsulated.

Reddy discloses oil field treatment compositions comprising encapsulated salts such as ammonium chloride, ammonium persulfate, sodium chlorate and sodium perborate (Column 4 Lines 37-46).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the encapsulated salts of Reddy in the composition of Le. The motivation to do so would have been to control the times when the chemicals are released in aqueous fluids (Reddy Column 1 Lines 13-21).

8. Claim 40 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Le as applied to claims 21-23, 27, 28, 31-35, and 37-39 above in view of US Patent 5,192,461 (Tomaszewski hereinafter).

Le teaches a wellbore treating fluid—specifically a proppant-laden fracturing fluid—comprising from about 0.1% to about 1.5% of a non-ionic hydrophobically

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modified polymer—specifically a formulation of acrylamide, sodium acrylate and a crosslinker—and a nonionic surfactant as detailed above.

Since Le teaches the same composition used in the same manner as claimed, the thermal activity of the Le composition would inherently be the same as claimed.

Le does not disclose expressly that the non-ionic surfactant is a ethylene glycol decyl ether surfactant.

Tomaszewski discloses a composition comprising a surfactant with ethylene glycol decyl ether moieties (Column 2 Lines 47-59).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the ethylene glycol decyl ether surfactant of Tomaszewski in the composition of Le. The motivation to do so would have been increase the solubility of any ethoxylated nonyl phenols present (Tomaszewski Column 2 Lines 60-68).

Conclusion

9. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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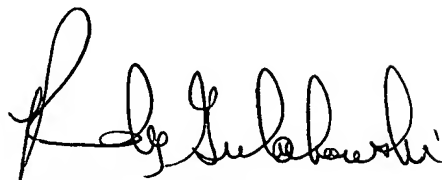
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Kugel whose telephone number is (571) 272-1460. The examiner can normally be reached 6:00 AM – 4:30 PM Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJK
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